

MATERIAL SAFETY DATA SHEET

FUJI GRAY 423C

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1. PRODUCT AND COMPANY IDENTIFICATION

POLYONE CORPORATION 33587 Walker Road, Avon Lake, OH 44012

NON-EMERGENCY TELEPHONE	:	Product Stewardship (770) 271-5902
Emergency telephone number	:	CHEMTREC 1-800-424-9300 (24hrs for spill, leak, fire, exposure or accident).
Product name	:	FUJI GRAY 423C
Product code	:	CC10028972
Chemical Name	:	Mixture
CAS-No.	:	Mixture
Product Use	:	Industrial Applications

2. COMPOSITION/INFORMATION ON HAZARDOUS INGREDIENTS

Components	CAS-No.	Weight %
Carbon black	1333-86-4	0.1 - 1
Calcium carbonate	1317-65-3	1 - 5
Mica	12001-26-2	10 - 30
Titanium dioxide	13463-67-7	10 - 30

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

This mixture has not been evaluated as a whole. Information provided on the health effects of this product is based on individual components. All ingredients are bound and potential for hazardous exposure as shipped is minimal. However, some vapors may be released upon heating and the end-user (fabricator) must take the necessary precautions (mechanical ventilation, respiratory protection, etc.) to protect employees from exposure.

POTENTIAL HEALTH EFFECTS

Routes of Exposure:	: Inhalation, Ingestion, Skin contact
Acute exposure	
Inhalation Ingestion Eyes	 Resin particles, like other inert materials, can be mechanically irritating. May be harmful if swallowed. Resin particles, like other inert materials, are mechanically irritating to eves.
Skin	: Experience shows no unusual dermatitis hazard from routine handling.
Chronic exposure	: Refer to Section 11 for Toxicological Information.







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Medical Conditions Aggravated by Exposure:	: None known.
	4. FIRST AID MEASURES
Inhalation	: Move to fresh air in case of accidental inhalation of fumes from overheating or combustion. When symptoms persist or in all cases o doubt seek medical advice.
Ingestion	: Do not induce vomiting without medical advice. When symptoms persist or in all cases of doubt seek medical advice.
Eyes	: Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. If eye irritation persists, seek medical attention.
Skin	: Wash off with soap and plenty of water. If skin irritation persists see medical attention.
	5. FIRE-FIGHTING MEASURES
Flash point	: Not applicable
Flammable Limits Upper explosion limit Lower explosion limit Autoignition temperature Suitable extinguishing media Special Fire Fighting Procedures Unusual Fire/Explosion Hazards	 Not applicable Not applicable Not relevant Carbon dioxide blanket, Water spray, dry powder, foam. Fullface self-contained breathing apparatus (SCBA) used in positive pressure mode should be worn to prevent inhalation of airborne contaminants. None
	6. ACCIDENTAL RELEASE MEASURES
Personal precautions	: Wear appropriate personal protection during cleanup, such as impervious gloves, boots and coveralls.
Environmental precautions	: Should not be released into the environment. The product should not be allowed to enter drains, water courses or the soil.
Methods for cleaning up	: Clean up promptly by sweeping or vacuum. Package all material in plastic, cardboard or metal containers for disposal. Refer to Section 1 of this MSDS for proper disposal methods.
	7. HANDLING AND STORAGE
Handling	: Take measures to prevent the build up of electrostatic charge. Heat

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	only in areas with appropriate exhaust ventilation.
Storage :	Keep containers dry and tightly closed to avoid moisture absorption and contamination. Keep in a dry, cool place.
8. EXPOSU	RE CONTROLS / PERSONAL PROTECTION
Respiratory protection :	No personal respiratory protective equipment normally required.
Eye/Face Protection :	Safety glasses with side-shields.
Hand protection :	Protective gloves.
Skin and body protection :	Long sleeved clothing.
Additional Protective : Measures	Safety shoes.
General Hygiene : Considerations	Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.
Engineering measures :	Heat only in areas with appropriate exhaust ventilation. Provide appropriate exhaust ventilation at machinery.
Exposure limit(s)	

Components	Value	Exposure time	Exposure type	List:
Calcium carbonate	10 mg/m3	Time Weighted Average	Total dust.	ACGIH
		(TWA):		
Calcium carbonate	5 mg/m3	PEL:	Respirable dust.	OSHA Z1
	15 mg/m3	PEL:	Total dust.	OSHA Z1
Carbon black	3.5 mg/m3	Time Weighted Average	Total dust. as carbon	ACGIH
		(TWA):	black	
Carbon black	3.5 mg/m3	PEL:	Total dust. as carbon	OSHA Z1
			black	
Mica	3 mg/m3	Time Weighted Average	Total dust.	ACGIH
		(TWA):		
Mica	20 mppcf	PEL:	Total dust.	OSHA
Titanium dioxide	10 mg/m3	Time Weighted Average	Dust.	ACGIH
		(TWA):		
Titanium dioxide	15 mg/m3	PEL:	Total dust.	OSHA Z1

9. PHYSICAL AND CHEMICAL PROPERTIES

Form Appearance Color Odor Melting point/range : Solid
: Pellets
: GREY
: Very faint
: Not determined

Evaporation rate Specific Gravity Bulk density Vapor pressure Vapor density Not applicable.Not determinedNot established

- : Not applicable
- : Not applicable



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Boiling Point: Water solubility	: Not applicable pH : Insoluble	: Not applicable
	10. STABILITY AND REACTIVITY	
Stability	: Stable.	
Hazardous Polymerization	: Will not occur.	
Conditions to avoid	: Keep away from oxidizing agents and decomposition, do not overheat.	open flame. To avoid thermal
Incompatible Materials	: Incompatible with strong acids and oxi	idizing agents.
Hazardous decomposition products	: Carbon dioxide (CO2), carbon monoxi (NOx), other hazardous materials, and	

11. TOXICOLOGICAL INFORMATION

This mixture has not been evaluated as a whole for health effects. Exposure effects listed are based on existing health data for the individual components which comprise the mixture.

Toxicity Overview

This product contains the following components which in their pure form have the following characteristics:

CAS-No.	Chemical Name	Effect	Target Organ
1333-86-4	Carbon black	Systemic effects	Eyes, Respiratory system.
1317-65-3	Calcium carbonate	Irritant	Eyes, Skin.
		Systemic effects	Eyes, Skin, Respiratory system.
12001-26-2	Mica	Systemic effects	Respiratory system.
13463-67-7	Titanium dioxide	Systemic effects	Respiratory system.

LC50 / LD50

This product contains the following components which in their pure form have the following toxicity data:

CAS-No.	Chemical Name	Route	Value	Species
1333-86-4	Carbon black	Oral LD50	>15,400 mg/kg	rat
		Dermal LD50	> 3 gm/kg	rabbit

Carcinogenicity:

This product contains the following components which in their pure form have the following carcinogenicity data:

CAS-No.	Chemical Name	OSHA	IARC	NTP
1333-86-4	Carbon black	no	2B	no

IARC Carcinogen Classifications:

1 - The component is carcinogenic to humans.

2A - The component is probably carcinogenic to humans.

2B - The component is possibly carcinogenic to humans.



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NTP Carcinogen Classifications:

1 - The component is known to be a human carcinogen.

2 - The component is reasonably anticipated to be a human carcinogen.

Additional Health Hazard Information:

Carbon black 1333-86-4 Carcinogenicity: Many inhalation toxicologists believe that the tumor response observed in the referenced rat studies is species specific and does not correlate to human exposure. However, the IARC evaluation in Monograph Volume 65, issued in April 1996 concluded that, "There is sufficient evidence in experimental animals for the carcinogenicity of carbon black". Based on this evaluation, along with their evaluation of inadequate evidence of carcinogenicity in humans, IARC's overall evaluation is that "Carbon Black is possibly carcinogenic to humans (Group 2B). Carbon Black has not been listed as a carcinogen by the National Toxicology Program (NTP) or the Occupational Safety and Health Administration (OSHA). The National Institute of Occupational Safety and Health (NIOSH) criteria document on carbon black recommends that only carbon black with PAH (polynuclear aromatic hydrocarbon) levels greater than 0.1% be considered suspect carcinogens.

	12. ECOLOGICAL INFORMATION
Persistence and degradability	: Not readily biodegradable.
Environmental Toxicity	: Chemicals are not readily available as they are bound within the matrix of the polymer.
Bioaccumulation Potential	: Chemicals are not readily available as they are bound within the matrix of the polymer.
Additional advice	: No data available.
	13. DISPOSAL CONSIDERATIONS
Product	: Like most thermoplastics the product can be recycled. Where possible, recycling is preferred to disposal or incineration. The generator of waste material has the responsibility for proper waste classification, transportation and disposal in accordance with applicable federal, state/provincial and local regulations.
Contaminated packaging	: Recycling is preferred when possible. The generator of waste materia has the responsibility for proper waste classification, transportation and disposal in accordance with applicable federal, state/provincial and local regulations.
	14. TRANSPORT INFORMATION
U.S. DOT Classification	: Refer to specific regulation.
ICAO/IATA	: Refer to specific regulation.
IMO / IMDG	: Refer to specific regulation.
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	15. REGULAT	ORY INFORMATIO	N	
US Regulations:				
OSHA Status	: Classified as	s hazardous based on co	omponents.	
TSCA Status	: All compon Inventory.	ents of this product are	listed on or exempt from the	TSCA
US. EPA CERCLA Hazardo	ous Substances (40 Cl	FR 302)		
Not applicable				
California Propositio 65	on : This product	t does not contain a sub	stance listed by California Pr	rop 65.
SARA Title III Section 313	Toxic Chemicals:			
Chemical Nat	me	CAS-No.	Weight %	
ZINC COMP	OUNDS	68187-51-9	00.88	
Canadian Regulations:				
WHMIS Classification	on : D2A			
WHMIS Ingredient D	Disclosure List			
CAS-No. 12001-26-2				
DSL		nents of this product are List (DSL) or are exem	on the Canadian Domestic pt.	
National Inventories:				
Australia AICS	: Listed.			
China IECS	: Listed.			
Europe EINECS				
1	: Not determine	ned.		



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Korea KECI : Listed.

Philippines PICCS : Listed.

16. OTHER INFORMATION

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.